National Institute of Environmental Health Sciences

Causes of death and demographic characteristics of victims of meteorological disasters in Korea from 1990 to 2008

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Abstract:

BACKGROUND: Meteorological disasters are an important component when considering climate change issues that impact morbidity and mortality rates. However, there are few epidemiological studies assessing the causes and characteristics of deaths from meteorological disasters. The present study aimed to analyze the causes of death associated with meteorological disasters in Korea, as well as demographic and geographic vulnerabilities and their changing trends, to establish effective measures for the adaptation to meteorological disasters. METHODS: Deaths associated with meteorological disasters were examined from 2,045 cases in Victim Survey Reports prepared by 16 local governments from 1990 to 2008. Specific causes of death were categorized as drowning, structural collapse, electrocution, lightning, fall, collision, landslide, avalanche, deterioration of disease by disaster, and others. Death rates were analyzed according to the meteorological type, specific causes of death, and demographic and geographic characteristics. RESULTS: Drowning (60.3%) caused the greatest number of deaths in total, followed by landslide (19.7%) and structural collapse (10.1%). However, the causes of deaths differed between disaster types. The meteorological disaster associated with the greatest number of deaths has changed from flood to typhoon. Factors that raised vulnerability included living in coastal provinces (11.3 times higher than inland metropolitan), male gender (1.9 times higher than female), and older age. CONCLUSIONS: Epidemiological analyses of the causes of death and vulnerability associated with meteorological disasters can provide the necessary information for establishing future adaptation measures against climate change. A more comprehensive system for assessing disaster epidemiology needs to be established.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3204281

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Researcher

Exposure : ☑

weather or climate related pathway by which climate change affects health

Extreme Weather Event

Extreme Weather Event: Flooding, Hurricanes/Cyclones, Landslides

Geographic Feature: ☑

resource focuses on specific type of geography

Ocean/Coastal

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: Other Asian Country

Other Asian Country: Korea

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Injury

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Elderly, Low Socioeconomic Status

Other Vulnerable Population: Coastal populations

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content